

## Claims

1. Tail-lift for a vehicle, comprising a lifting mechanism (30) for lifting and lowering a platform (50), and guiding rails (21) in which the lifting mechanism (30) is suspended with one vertical carriage (32) each, and can be slidably displaced between a working position located behind the vehicle and a travelling position located below the vehicle, wherein each carriage (32) has a front guiding element (40a) with an upper sliding member (42a) and a rear guiding element (40b) with a lower sliding member (42b), characterized in that the front guiding element (40a) is attached from above onto the carriage (32) and is arrested on the carriage (32) at right angles to the direction of attachment, and/or the rear guiding element (40b) is attached from below onto the carriage (32) in an opening (32.3) of the carriage (32) and is arrested on the carriage (32) at right angles to the direction of attachment.
2. Tail-lift according to claim 1, characterized in that the front guiding element (40a) is inserted into a recess (32.5) of the carriage (32) which opens to the top.
3. Tail-lift according to claim 1 or 2, characterized in that the front guiding element (40a) is guided in the recess (32.5) of the carriage (32) such that it can be vertically displaced and is disposed to be tiltable.
4. Tail-lift according to claim 3, characterized in that an abutment surface (32.6) of the carriage (32), which cooperates with the sliding member (42a) of the front guiding element (40a), is convexly curved into the recess (32.5) of the carriage (32).
5. Tail-lift according to any one of the preceding claims, characterized in that the rear guiding element (40b) is guided in the recess (32.5) of the carriage (32) such that it can be vertically displaced, and is disposed to be tiltable.
6. Tail-lift according to any one of the preceding claims, characterized in that an abutment surface (32.2) of the carriage (32) which cooperates with the

sliding member (42b) of the rear guiding element (40b) is convexly curved into the recess (32.5) of the carriage (32).

7. Tail-lift according to any one of the preceding claims, characterized in that the front and/or rear guiding element (40a; 40b) projects beyond both sides of the carriage (32).
8. Tail-lift according to any one of the preceding claims, characterized in that the sliding member (42a, 42b) of the front and/or rear guiding element (40a, 40b) has a U-shaped cross-section, viewed in the guiding direction of the carriage (32).
9. Tail-lift according to any one of the preceding claims, characterized in that the front and/or rear guiding element (40a; 40b) comprise(s) a sliding member carrier (41a; 41b) on which the sliding member (42a, 42b) is held.
10. Tail-lift according to claim 8 and 9, characterized in that the front sliding member carrier (41a) and/or the rear sliding member carrier (41b) have a U-shaped cross-section, viewed transversely to the guiding direction of the carriage (32), and the sliding member carrier (41a; 41b) and its sliding member (42a), being mutually rotated by 90°, positively engage each other, in particular, over their entire surfaces.
11. Tail-lift according to claim 9 or 10, characterized in that the two sliding member carriers (41a, 41b) and/or their sliding members (42a, 42b) each have the same design.